

Serendipitous Searching for Graded Readers

Dubhgan Hinchey

Abstract

Searching for a graded reader can be a challenging task for students in an extensive reading program, particularly if said students are attempting to discover and select a reader based on information discovered in a webpage. Pertinent issues are the discrepancies between the available search methods of local libraries and online extensive reading courses utilizing the MoodleReader module. Data such as reader word count, student comments, or number of copies are missing from search interfaces, making quick and efficient selection of graded readers a time intense process and one that students may be attempting by themselves. This paper explores the current search methods available in an extensive reading course and proposes the inclusion of new metadata in a sharable Moodle Database activity. The resulting robust search interface can be utilized to augment an extensive reading course using MoodleReader or as a substitute for a local library search engine with the options of student managing the reader database. The rationale for an extensive reading program and an overview of the current Reader module will be introduced. Discussion will also include the addition of eBooks to the Database activity for an extensive reading program that is both digital and print based.

Keywords

extensive reading, Reader module, Moodle, eBooks, graded readers

Extensive Reading Rationale

Research on the percentage of vocabulary coverage that learners of English need in order to comprehend written texts without support, suggests the figure of 98% (Hsueh-Chao & Nation, 2000; Schmitt, Jiang, & Grabe, 2011). Restated, ideally readers should encounter only two unknown words out of a hundred words in a passage of text. Research on vocabulary size in order to comprehend authentic English written texts suggests that between 8,000 to 9,000 word families need to be known (Nation, 2006). Attention should be drawn to the difference between a word family, word, and lemma as one word family will contain multiple lemmas and hence, multiple

‘words’ per word family. Nation (2006,) writes, “For example, the word-family of *abbreviate* contains the following members: *abbreviate, abbreviates, abbreviated, abbreviating, abbreviation, abbreviations*. This family consists of two lemmas: the *abbreviate* lemma with four members and the *abbreviation* lemma with two members” (p.63). Therefore, in order to read an authentic written text in English with 98% coverage, one would need to know a large number of words, a number that is greater than the number of word families of 8,000 to 9,000 as stated by Nation (2006).

For teachers of English as a Foreign Language (EFL), the number of word families needed to achieve the 98% coverage when reading authentic texts becomes a point of concern, since the large vocabulary required to read in English would make reading at or above the 98% coverage unattainable for many EFL students. One solution is to have students read simplified or graded readers that are within the first 3,000 word families of English (Nation, 2006; Nation & Anthony, 2013), word families that Schmitt & Schmitt (2012) argue, contain the most frequent vocabulary and thereby the most useful for introductory students.

The use of graded readers is particularly popular with Extensive Reading (ER) in Japan, with a majority of the published research on the effectiveness of ER originating from the Japanese EFL context (Nakanishi, 2014). ER programs in Japan in English language curricula are well supported by four associations that share the similar theme of ER. Table 1 is a list of the associations with the first two Significant Interest Groups (SIGs) of the Japan Association for Language Teaching (JALT), the ER SIG and the Computer Assisted Language Learning (CALL) SIG. Recently, there has also been the formation of the ER Foundation, which provides practical advice and resources for managing ER programs. The first three associations have similar members and goals, perhaps due to the influence of the Virtual Learning Environment (VLE) Moodle, the Moodle Association of Japan (MAJ) and the subsequent development of the MoodleReader module (Robb & Waring, 2012; Robb & Kano, 2013) for use in ER programs.

Table 1

List of the academic associations in Japan that relate to extensive reading.

Academic Association	Publications	Yearly Conference
1. JALT ER SIG	e-Newsletter Extensive Reading in Japan The Journal of Extensive Reading	Extensive Reading Seminar
2. JALT CALL SIG	C@lling Japan JALTCALL Journal	JALT CALL Conference
3. ER Foundation	Word Conference on ER Proceedings Reading in a Foreign Language* Reading Matrix *	World Conference on ER
4. MAJ	MAJ Newsletter	Moodle Moot Japan

**Both publications are suggested, but are not managed by the ER Foundation.*

Pedagogical papers that are frequently cited in the academic circles of the ER associations (Day & Bamford, 2002; Day, 2013; Extensive Reading Foundation, 2011; Warring, 2011) advocate using simplified texts or graded readers with students reading for pleasure and reading numerous texts outside of class with reading progress reported to or tracked by ER teachers. Specifically the Extensive Reading Foundation's Guide to Extensive Reading (2011) uses the acronym, "R.E.A.D., Read quickly and Enjoyably with Adequate Comprehension so they (*students*) Don't need a dictionary" (pg. 1). Presuming that students are selecting the correct, level appropriate graded readers to read, then the assumption is that over time, incidental vocabulary learning will occur as students' progress through the graded reader levels. Therefore in the Japanese EFL context, ER programs are to a certain degree focused on library and book management in order to facilitate students' enjoying reading and locating books they desire to read.

The Reader Module

The Moodle Reader module, now referred to as the Reader module, is an additional software module to the VLE, Moodle, and can be downloaded and installed on a working version of Moodle. Once installed, the next step is to contact Thomas Robb via moodlereader.org and

receive log on credentials to the database of quizzes that are managed by him and the Extensive Reading Foundation. Once installed and connected, the Reader module interface enables language teachers to select and download quizzes and the accompanying graded reader metadata to their own individual Moodle (Moodlereader, n.d.). This greatly reduces the amount of time required to create an ER program and addresses the traditional problem of student and book management because the Reader module logs students' book quiz scores and creates several ways to search and find graded readers via title, publisher, Moodle Reader level, or genre. Another benefit is that the Reader module, to some extent, superimposes a set of standardized levels on the graded readers as a solution to the various terminology (e.g., starter vs. introductory vs. level 1) that different publishers use and the differences between publisher levels, e.g., word count or lexical complexity.

EFL teachers who are unfamiliar with Moodle can utilize M-Reader (n.d.), a web-based version of the original Reader module that is hosted by the Extensive Reading Foundation. For EFL teachers interested in starting an extensive reading program, the only requirements are to have a collection of print graded readers with students that can regularly access the Internet and the readers themselves. Funds to purchase print graded readers and where to physically store the readers are issues that each institution solves for itself; however, the Reader module and later M-Reader website has enabled language teachers to benefit from the collaborative effort of other ER teachers, CALL teachers, and Moodle developers with regards to the writing of quizzes, updating of graded reader metadata, and module development.

The ER course

The specific context of the ER course, the topic of discussion of this paper, takes place in the Japan Advanced Institute of Science and Technology (JAIST), a graduate school located in Ishikawa prefecture, Japan. The student population at JAIST is comprised of roughly 30% international students and 70% Japanese students, whose main tasks are completing required courses, researching in their laboratories, and presenting or publishing research. The ER course serves as part of the ongoing assignments for two introductory, non-credit bearing English courses at JAIST. Figure 1 is a screenshot of the homepage of the ER course in the JAIST VLE. During an 8-week period, students are required to read and pass 50,000 words in the first course and then

continue on to the second introductory course, again 8 weeks, to further read and pass another 100,000 words as tracked by the Reader module. Students obtain print, graded readers in the following steps. First, students log in to the ER course to discover graded readers via the Reader View or JAIST library blocks as shown Figure 1. After class, students travel to the JAIST library, borrow the graded readers they previously selected, and read the graded readers. To facilitate searching and selection of readers, all readers were stored in a separate media room in the JAIST library and were labeled with the Reader module levels (MR 1, MR 2, etc.). Once a graded reader is read, students log back into the ER course, navigate to the individual quiz of the graded reader in the Book Quizzes (Reader module) activity and lastly attempt the quiz. While attempting the quiz, students are allowed to refer to the book and are not limited to one specific level of grade reader. The Book Quizzes settings were selected to require a 70% grade or better to 'pass' a 10 question quiz with a time limit of 15 minutes. Such criteria was set after examining the ER course logs over a two year period where 81 of 89 students successfully passed reader quizzes in 10 minutes or less.

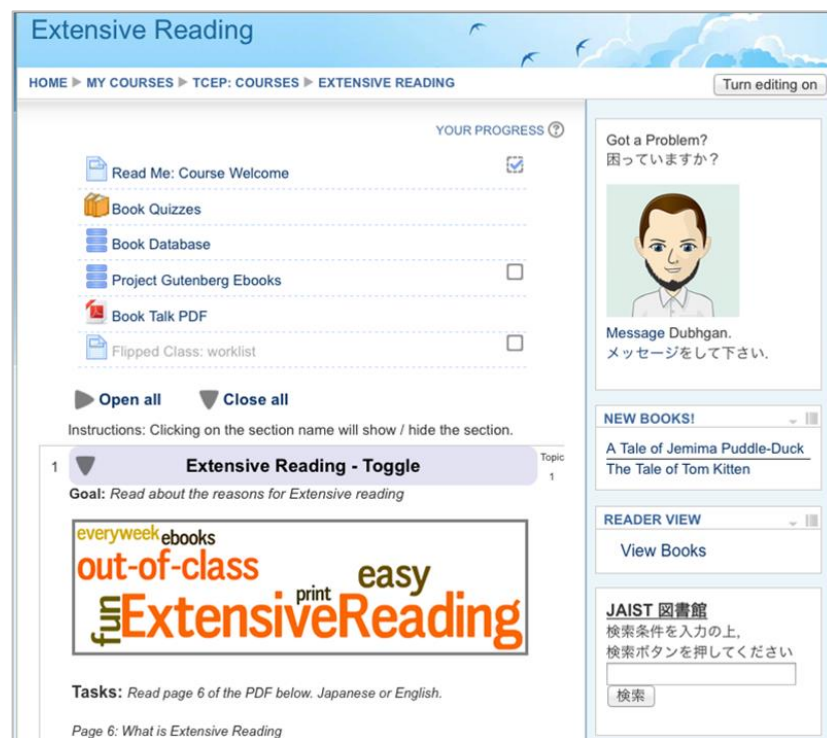


Figure 1. The extensive reading course homepage as a Moodle course. Note the Reader View block and JAIST library (JAIST 図書館) search block on the right sidebar.

Searching for readers

Students can search for graded readers via three different methods in the ER course. First, there is the Reader View block with the categories of genre, publisher, and level. Figure 2 is an example search for the '*Wizard of Oz*', published by Oxford University Press in the Oxford Bookworms series with a publisher assigned reading level of 'stage 1'. Similar to many search engines, the more search criteria or fields that are selected, the narrower the search results will be. For example, a search using only 'Oxford Bookworms' for the *publisher* field will return 164 entries for any book in the Oxford Bookworms series. Alternatively, selecting only 'level 4' as the *reading level* will return 84 book entries for any book at level 4. In the example search demonstrated in Figure 2 for the '*Wizard of Oz*', two search fields were selected, Oxford Bookworms for the *publisher field*, along with level 4 for the *reading level* field. Utilizing two search fields narrows the search results to 31 entries with the '*Wizard of Oz*' being the 3rd to last entry on the results webpage. However, in order to utilize both search fields in the View Book block featured in Figure 2 to locate the '*Wizard of Oz*', students would have to already know the publisher name and the Moodle Reader level of the book in question. There is also the Book Quizzes or Reader module itself (Figure 3) where if students click the 'show advanced' hyperlinked text, students can search by the reader title and publisher with the additional fields of genre, publisher level, and Moodle Reader level available. Lastly, there is the local JAIST library webpage that employs an Open Access Public Catalog (OPAC) system, a common system for libraries in Japan. The JAIST library search webpage was included in the ER course as the JAIST 図書館 block in Figure 1. (Please refer to Appendix 1 for the HTML code and OPAC URL used.) Students can search via title or keywords. In the initial search results via the JAIST library block, 4 results were displayed with the first result being the 'correct' book, the Oxford Bookworms *Wizard of Oz*, however the other three results were for eBooks with the same title from the online public library of Project Gutenberg (2015). Figure 4 is the 2nd JAIST library webpage after a student has correctly selected the Oxford Bookworms reader. Worthy of note is the incorrect information of an audio CD being included with the reader which may frustrate students who were particularly interested in an audio version of the graded reader.

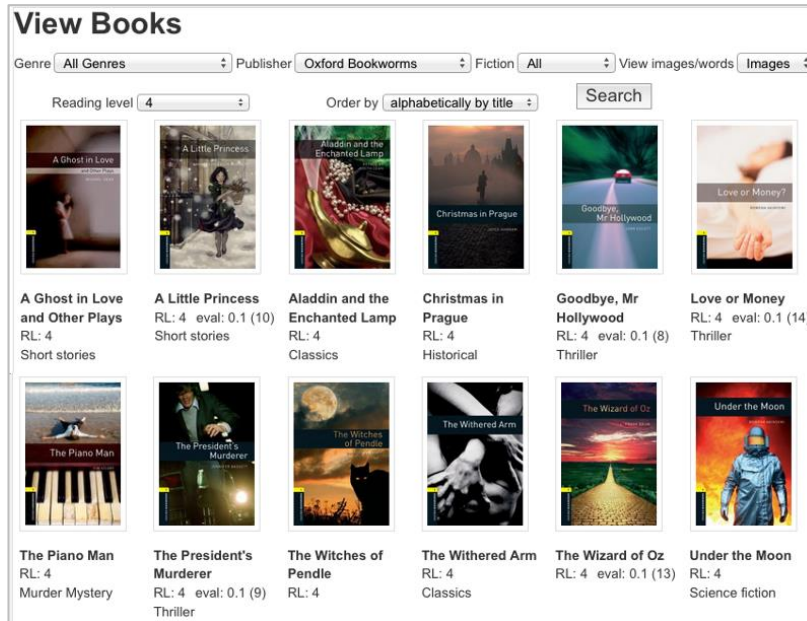


Figure 2. Example of searching for the ‘*Wizard of Oz*’ by publisher and Reading level in the View Books block. Note that because of space restrictions, only the first row of search results and the additional row containing the *Wizard of Oz* were included in the edited screenshot that is Figure 2.

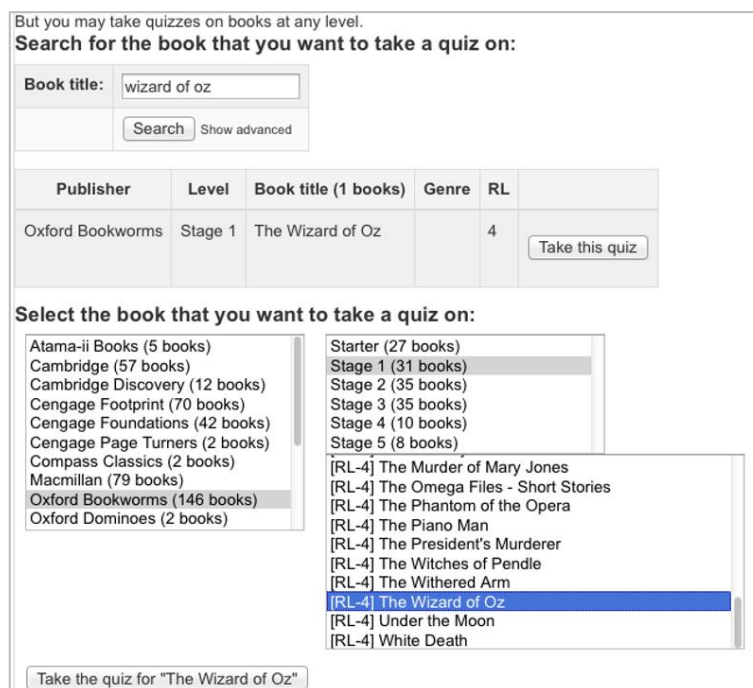


Figure 3. Example of searching for ‘*Wizard of Oz*’ via the Book Quizzes interface by book title or publisher.

Bibliography Details 1 of about 4
Print

Back to List
Next

The wizard of Oz

L. Frank Baum ; retold by Rosemary Border ; illustrated by Gillian McLean ; : [book with audio CD]. ; audio CD. -- Oxford University Press, 2008. -- (Oxford bookworms library / series editor, Jennifer Bassett ; Fantasy & horror ; stage 1). <BB00220245>

Functions:
Bookmark
Output
Mail

Details

URL: http://opacsrv02.jaist.ac.jp/webopac/BB00220245
Select

HoldingsList 1-2 of about 2

Click a number to display details about the collection.

10 Items

No.	Volumes	Section	Material ID	Call No.	In-Lib o nly	Status	Due Date	Reservati on
0001		2F/Engli sh Teach ing Mats	14191201161	E837 O 1	Borro wable	In Plac e		0.
0002		2F/Engli sh Teach ing Mats	14191202570	E837 O 1	Borro wable	In Plac e		0.

Figure 4. Example search for the ‘*Wizard of Oz*’ in the JAIST library webpage (OPAC) with two copies available.

In summary, there are many discrepancies in the fields available for searching in the three methods previously described, the View Books block, Book Quizzes, or the JAIST library block. In addition, differences in levels (Moodle Reader vs. Publisher), audio availability, and different editions of books could cause confusion for new students trying to locate a level appropriate, interesting reader in a timely manner. Specifically, in the ER course students are rewarded by completing either the 50,000 or 100,000 word count goals, which suggests that a field of *word count* for readers should be included as a possible search option. Table 2. is a comparison of the current fields in the three search methods of the ER course. The fields of *summary*, *word count*, *copies* and *audio* are suggested by the author as beneficial fields to be included in an ideal search webpage. Of course, students could discover some of the information if they visit the JAIST library and manually browse the shelves; however, students are usually time stressed and even if students attempted to manually search each book, there is another issue of the JAIST library bar code stickers that often cover the word count, publisher level, or book summary on the back cover of the readers.

35

Table 2

Comparison of the available and suggested search fields for readers.

Search fields	JAIST library	Reader View	Book Quizzes
Title	O	X	O
Publisher	O	O	O
MR level	X	O	O
Genre	O*	O	O
Images	O*	O*	X
Summary	X	X	X
Word Count	X	X	X
Copies	X*	X	X
Audio	X*	X	X

*Mixed results. Incorrect data, missing or small images, or no searchable field. Existing fields are shown with an ‘O’, non-existing fields are shown with an ‘X’.

Graded reader database

Ideally, there would be one webpage that would contain all the relevant metadata associated with a graded reader, allowing students to accurately search and discover graded readers. Fortunately, such metadata to create an ideal search interface is freely available via the exhaustive Google Spreadsheets (<https://sites.google.com/site/erfgrlist/>) that the ER Foundation, partnered with publishers, has compiled. Publisher websites also have large, high quality images with short teaser summaries of the graded readers. The JAIST library provides a unique URL for each graded reader, which can further be added to a webpage as a hyperlink.

The VLE Moodle has many activities that teachers can select and later populate with content such as text, images or audio. One such activity that is often overlooked is the Database activity (Moodle, 2015). Users can add fields that are predefined by types. One example is the *textarea* field, which results in an active text box with the Moodle WYSIWYG (What You See Is What You Get) editor at the top of the text box as shown in Figure 5. Adding the field type of *textarea*, allows users to enter metadata in the form of a book summary in the *textarea* field.

Automatically, *textarea* field types are searchable and can be cross-referenced with any other text based fields. Therefore the text entered for a book title, author, or book summary can all be searched via the Moodle Database activity. Hence, a Moodle Database activity was chosen as the container for the collected grade reader metadata and as the search interface.

New entry

Description E:

	Paragraph ▼	B	I							
		<u>U</u>	S	X ₂	X ²					
Font family ▼	Font size ▼	<>		A _B	+ □	Ω			T _x	

|

Path: p

HTML format


Figure 5. A *textarea* field in a Moodle Database activity with all the WYSIWYG editor toolbar buttons displayed.

Table 3 is a list of the metadata for one graded reader. Graded readers that were Moodle Reader level 0 had the additional field of a Japanese language description. The actual image files of the readers were stored in a local web folder provided by JAIST, thus the *image* metadata field or book covers of the readers is actually the URL of the image location, not the image file itself. The author also discovered that displaying images via a *textarea* field was more advantageous because the HTML attributes for the image width and height could be predefined in the HTML code that included the image URL.

Table 3

Examples of metadata for a single graded reader in the Moodle Database activity.

Metadata	Example
Reader title	The Blue Cat Club
Publisher	Penguin Active Readers

Word count	884
Format	Print
Description E	James and Chantal are enjoying an evening of magic at...
Description J	
Genre	Humor, Realistic Fiction
Moodle Reader Level	1
Audio	CD
Library Link	http://opacsrv02.jasit.ac.jp/webopac/BB00222345
Copies	1
Image	
Search Word Count	1k

The ability of cross-referencing the fields created a unique and powerful search tool shown in Figure 6. For example, students could now search for readers to match particular search criteria, such as all readers at Moodle Reader level 1, using the keyword *magic*, which include an audio CD. The convenience of having hyperlinks to JAIST library webpages for each reader was also possible in the Database; as a result, students could bypass the general JAIST library search webpage. In addition to the teacher created fields of metadata in Table 3, a five-point scale was also added (1 Terrible, 2 Bad, 3 OK, 4 Good, 5 Great) so that students could rate readers. Additionally, the ability for students to comment on the reader entries in the database was enabled. Both rating and commenting on readers was perceived as another method for students' to collaboratively and efficiently discover appropriate readers. An example of a student comment is shown in the bottom of Figure 6 with one student having rated the book *Good*.

[View list](#)
[View single](#)
[Search](#)
[Add entry](#)
[Export](#)
[Templates](#)
[Fields](#)
[Presets](#)

Page: (Previous) 1 ... 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 ...262 (Next)

Title: Sarah's Surprise **MRLevel:** Zero **Format:** Print

Publisher: Cengage Foundations **Words:** 527 **Audio:** None

Genre: Realistic Fiction School Drama **#Search:** 1k **Copies:** 3

Summary

It is Sarah's first day in the cafe. A man comes into the cafe, takes some food, but does not give any money to Sarah. What does she do?

カフェでアルバイト初日のサラ。そこにやってきた男は、サンドイッチをカバンの中に入れ、お金を払わずに出て行きました！さあ、どうする？

Library: <http://opacsrv02.jaist.ac.jp/webopac/BB00220730>

Library: <http://opacsrv02.jaist.ac.jp/webopac/BB00232651>

Files:

Average of ratings: Good (1)

▼ Comments (1)

Shotaro Horibe - 30 Jun, 15:29

I think that shop staff shouldn't take goods away.

Figure 6. A single entry in the Moodle Database activity of graded readers. Note the student comment and rating of *Good* as student created metadata.

Conclusion

In light of the overview of the summary of the research supporting extensive reading in Japan and the strong support from the accompanying associations, a new search interface in the form of a unique Moodle Database activity may be a beneficial addition to an ER program. In the author's opinion, the additional fields of metadata proposed is an efficient solution when juxtaposed against the limited metadata in an OPAC library system or the Reader module. The graded reader database not only allows users to tailor-make their own searches, but to also comment or rate books so that other classmates or future cohorts of students can benefit from additional metadata. Currently, the database has 262 entries of a graded reader library of about 850 print readers, however adding more entries to the database is an ongoing task.

In conclusion, the reader database was conceived to be a shareable resource. The collected metadata of the readers was organized in easily accessible Google Spreadsheets. Other teachers interested in trialing the database can download an empty database from the author. Then, from the Google Spreadsheets, teachers can selectively export the Spreadsheets as Comma-Separated Files (CSV) for later import into their own Moodle database of graded readers, thereby mirroring

their own institutional print library of graded readers. An example of one entry for a book in a CVS file is given in Appendix 2.

Furthermore, as seen in Figure 1, another database of the public domain eBooks and audio books from Project Gutenberg (2015) and Librivox (n.d.) has been created. The possibility of an extensive reading program that is completely online and not tied to any one device or user account may become a reality with the added feature of students being able to have books read to them via the native English speakers from the Librivox project. This is possible because many of the eBooks in Project Gutenberg are the same editions that have been recorded as audio books in Librivox. Unfortunately, Project Gutenberg eBooks are not lexically graded, but the added affordances of audio and device dictionaries may aid students enough to attempt the categories of Juvenile fiction, such as the original *Wizard of Oz*.

References

- Day, R., & Bamford, J. (2002). Top ten principles for teaching extensive reading. *Reading in a foreign language*, 14(2), 136-141.
- Day, R. (2013). Creating a successful extensive reading program. *TESL Reporter*, 46(1&2), 10-20.
- Extensive Reading Foundation. (2011). The Extensive Reading Foundation's Guide to Extensive Reading. Retrieved from http://erfoundation.org/ERF_Guide.pdf
- Hsueh-Chao, M., & Nation, P. (2000). Unknown vocabulary density and reading comprehension. *Reading in a foreign language*, 13(1), 403-30.
- Librivox. (n.d.) About Librivox. Retrieved from <https://librivox.org/>
- Moodle. (2015). Building Database. Retrieved from https://docs.moodle.org/30/en/Building_Database
- Moodlereader. (n.d.). The Moodle Reader Module. Retrieved from <http://www.moodlereader.org/>
- M-Reader. (n.d.) About. Retrieved from <http://mreader.org/mreaderadmin/s/html/about.html>
- Nakanishi, T. (2014). A Meta-Analysis of Extensive Reading Research. *TESOL Quarterly*. 49(1), 6-37.
- Nation, P. (2006). How large a vocabulary is needed for reading and listening?. *Canadian Modern Language Review*, 63(1), 59-82.

- Nation, P., & Anthony, L. (2013). Mid-frequency readers. *Journal of Extensive Reading*, 1, 5-16.
- Project Gutenberg. (2015). Retrieved from <https://www.gutenberg.org/>
- Robb, T., & Kano, M. (2013). Effective extensive reading outside the classroom: A large scale experiment. *Reading in a Foreign Language*, 25(2), 234-247.
- Robb, T., & Waring, R. (2012). Announcing MoodleReader version 2. *Extensive Reading World Congress Proceedings*, 1, 168-171.
- Schmitt, N., Jiang, X., & Grabe, W. (2011). The percentage of words known in a text and reading comprehension. *The Modern Language Journal*, 95(1), 26-43.
- Schmitt, N., & Schmitt, D. (2012). A reassessment of frequency and vocabulary size in L2 vocabulary teaching. *Language Teaching*, 1-20.
- Waring, R. (2001). Extensive Reading in English Teaching. In H. Widodo & A. Cirocki (Eds.) *Innovation and Creativity in ELT Methodology*. New York: Nova Publishers.

Author Bio

Dubhgan Hinchey is a research lecturer at the Japan Advanced Institute of Science and Technology where he is the Moodle courseware and Drupal administrator. His research interests include content management systems, gamification and extensive reading. Currently, he is enrolled in the Digital Education MSc program at the University of Edinburgh.

Appendix 1

Example HTML code for the HTML Moodle block in the ER course with the unique JAIST library search URL in bold. To find a different university library OPAC URL search the following website: <http://ci.nii.ac.jp/books/>

```
<form target="_blank" action="http://opacsrv02.jaist.ac.jp/webopac/ufirdi.do" method="get">
<div id="top_opec"><span style="text-decoration: underline; font-size:
medium;"><strong>JAIST 図書館</strong></span>
<p>検索条件を入力の上,<br />検索ボタンを押してください<br /><input value="40"
name="listcnt" type="hidden" /><input value="40" name="maxcnt" type="hidden" /><input
```

```
size="25" name="words" type="text" /><br /><input value="検索" type="submit" /><input
name="ufi_target" value="ctlsrh" type="hidden" /><input value="ja" name="ufi_locale"
type="hidden" /></p>
</div>
</form>
```

Appendix 2

Example of a Comma-Separated File (CSV) from the Graded Reader Database. CSV files are the exportable file format for Moodle Database activity entries, in this case, the graded reader entries themselves. The Database activity fields are in bold, with the metadata following.

**Book Title,Publisher,WordCount,Format,DescriptionE,Description
J,Genre,Quiz,MoodleReaderLevel,Audio,Library,Copies,Library2,Figure,Link, search word
count**

Sarah's Surprise,Cengage Foundations,527,Print,<p>It is Sarah's first day in the cafe. A man comes into the cafe& takes some food& but does not give any money to Sarah. What does she do?</p>,<p>カフェでアルバイト初日のサラ。そこにやってきた男は、サンドイッチをカバンの中に入れ、お金を払わずに出て行きました！さあ、どうする?</p>,Realistic Fiction##School Drama,,Zero,None,http://opacsrv02.jaist.ac.jp/webopac/BB00220730 ,3,http://opacsrv02.jaist.ac.jp/webopac/BB00232651 ,<p></p> ,1k